

REMARKS

Claims 12, 14-18, 20-24 and 28-29 are amended. Claim 36 is cancelled. Claims 1-35 remain in the case.

Claim 1-9, 13-17, 19, 28 and 31-35 were rejected under 35 U.S.C. 103(a) as being unpatentable over Schelde (EPO 799 764). Claims 10 and 11 were rejected under 35 U.S.C. 103(a) as being unpatentable over Schelde in view of DeOliveira. Claims 29-32 were rejected under 35 U.S.C. 103(a) as being unpatentable over Schelde in view of Goldman. The rejections of the claims are traversed.

Referring to EP 0799764 A1 (Schelde), this patent discloses a hull construction for displacement vessels and more particularly, for large ocean going oil tankers or the like. Evidence for this can be found in the second paragraph in column 1 of the description, which makes reference to WO-A-92/10396 (Stuart), and the third paragraph, which sets out the object of the invention to be "increase the strength of such a tube construction" (i.e., the construction disclosed in Stuart).

The introductory paragraph to Stuart sets out the field of invention as being concerned with "hull modification to oil taker vessels and other ships engaged in the trade of carrying liquids which would, if the hull were breached, present a potential hazard to the environment and an economic risk of losing cargo".

Here, in addition to not disclosing a planing vessel, as alleged by the Examiner, Schelde does not disclose a vessel having passenger accommodation. It is submitted that a skilled person reading Schelde would naturally conclude that the hull modification proposed was directed to large ocean going tankers and in particular, to oil tankers. The requirements of a large displacement vessel such as that to which Schelde is directed, are very different to the requirements of a planing vessel such as that claimed in the application.

Displacement vessels require heavy duty impact protection, which adds significantly to the below waterline weight of the hull. Contrastingly, in planing vessels, weight has to be kept to a minimum in order to ensure that planing is possible. Schelde is directed to a heavy duty, bulky and complex double-hull system, which is unsuitable for a planing vessel.

Furthermore, a skilled person would understand increased weight to be an advantage of such impact protection systems, from reading Schelde and by reference Stuart, because of the improved ballast affect. Page 8, paragraph 2 of Stuart for example, clearly teaches that an improved ballast effect is desirable, and that the double-hull arrangement, which Schelde merely improves upon, is advantageously used to increase such ballast affect.

In view of this, Schelde's European application is clearly directed to an impact protection system which would be too heavy and bulky for use in a planing vessel. A skilled

person reading Schelde would not find it obvious to include the modified hull disclosed in a planing vessel.

Additionally, Schelde's impact protection arrangement would be expensive and time consuming to make and install, which would be a significant concern for the designers of a planing vessel, in which such a complex system would represent a large proportion of the manufacturing costs. This would not be such a concern for the large displacement vessels Schelde is directed to improving, because the large cost of the hull would represent only a relatively small proportion of the manufacturing cost of the ship.

The Examiner's citation of Schelde against claim 9 in particular, is not followed. Schelde does not appear to make any reference to a least two tubes extending at an angle of up to and including 30 degrees to each other. It would appear therefore, that the citation against claim 9 has arisen from a clerical error. This conclusion is further supported by the fact that Schelde is not cited against claim 10 on its own, which relates to a very similar limitation to that of claim 9.

The Examiner's objections based on US 4880088 (DeOliveira) in combination with Schelde would appear moot, if the Examiner accepts the above arguments. Nevertheless, it is pointed out the DeOliveira relates to a significantly different technology field than that of the invention. Specifically, the impact protection system of DeOliveira is designed to protect a static, floating structure such as an oil rig or the like. As with Schelde, the weight and configuration of the steel tube used would render the protection system both heavy and bulky. This may be advantageous for an oil rig, to act as ballast, and to assist in steadying the rig against wave forces, the system would not be suitable for a planing vessel, for similar reasons to those discussed above. Similarly, as with Schelde, the system would be too expensive and complex for the skilled person even to consider using in a planing vessel. Furthermore, a skilled person would not naturally combine the teaching of DeOliveira and Schelde because of the significant difference in the design fields to which each document relates.

In view of the above comments and observations, it is believed that the invention claimed in the application would not be obvious to the skilled person reading Schelde either on its own or in combination with DeOliveira.

Claims 12, 18 and 20-27 were objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all the limitations of the base claim and any intervening claims. Claims 12 and 20 have been rewritten in independent form including all the limitations of the base claims and the intervening claims. Claims 13-38 and 30 are ultimately dependent on either claim 12 or 20.

This Amendment should place this case in condition for passing to issue. Such action is requested.

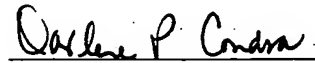
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If the Examiner feels that prosecution of the present application can be expedited by way of an Examiner's amendment, the Examiner is invited to contact the Applicant's attorney at the telephone number listed below.

Respectfully submitted,

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